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U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

TECHNICAL NOTE

TECH. NOTE 220

Filing Code

9140

Date Issued November 1969

no. 220

Bureau of Land Management U.S. DEPARTMENT OF THE INTERIOR

STAND FOR SLIP-ON PUMPER

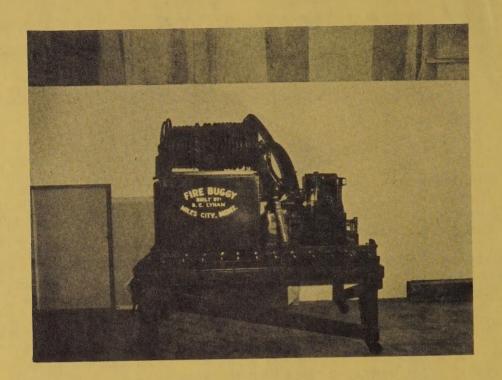
An employee suggestion submitted by Hyrum Wilson and Marcus Gress of the Belle Fourche, South Dakota office recommends a design for Bureauwide standardization of fire pumper stands. The suggestion has been adopted for optional use by all bureau offices.

The stand is constructed primarily of 2"X4" lumber and is easily constructed at minimal cost. The largest expense is for rollers and casters and will vary depending upon whether they are new or used. The casters permit stand and pumper to be moved out of the way during non-fire season providing better use of warehousing space. It also allows the pumper to be brought to the truck which can be a time saver. A pair of swivel base casters (at least 4" in diameter) coupled with a pair of solid base casters permit the stand to be steered easily by one man. Cream can rollers are used on the top of the stand as they are heavy enough to bear the weight of a heavy pumper, are equipped with ball bearings, and are easily dismantled for maintenance. By using these rollers the pumper can be loaded by one man and unloaded by two men with comparable ease.

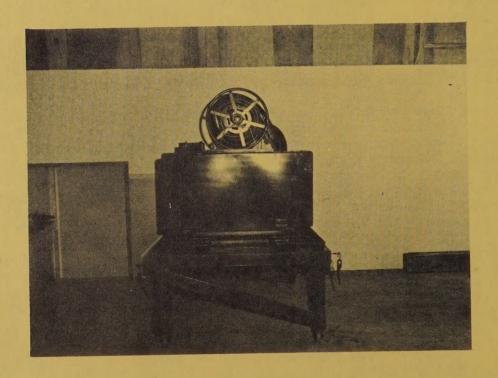
The space between the two sets of rollers is covered with 3/4" plywood to allow a man to walk on the stand while loading or unloading the pumper. Cleats, evenly spaced, should be attached to the plywood walkway to provide firm footing preventing injuries due to slipping.

The stops are to prevent the pumper from falling off the other side. To keep the stand from moving when loading or unloading, a small chain boomer is attached to eyebolts on the stand and the tailgate chain on a pickup. To prevent the pumper from accidently sliding off of the stand, it may be locked on by placing a bolt through a hole drilled in the pumper frame and between the rollers. However, an alternate method would be to put another set of eye bolts on the other end by the stop and place the boomers from these to holes in the pumper frame.

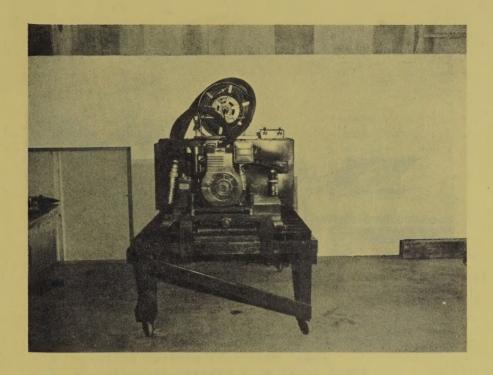
While this stand is designed to load the pumper onto a 2-wheel drive pickup, a slight modification in height will allow the stand to be used with a 4-wheel drive pickup or a larger truck. In modifying the height, the stand should not be more than 2" above the bed of the truck, thus eliminating the need to lift the pumper to any extent.



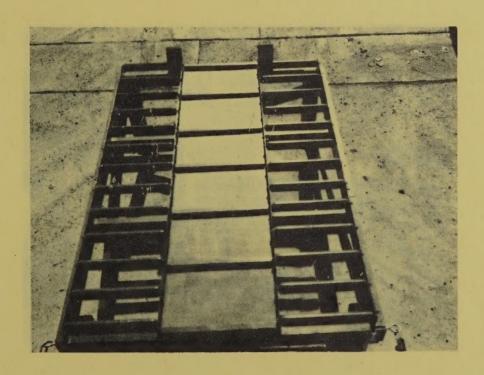
Side view of the stand with pumper.



End view of the stand with pumper. Note: The eyebolts and chain boomers.



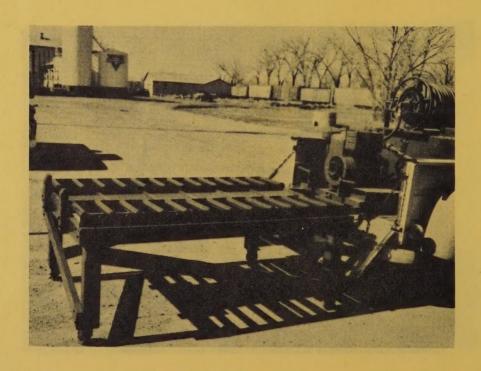
End view of stand with pumper. Note: The stops and the bolts that lock the pumper onto the stand.



Top view of the stand showing the stops, the rollers and the cleated walk between the rollers.



Pumper being loaded into a pickup. Note: The boomer attached to the tailgate chains of the pickup.



Pumper ready to be unloaded from the pickup. Note: The short distance required to lift the pumper onto the stand.

List of Materials Used

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2 - 2 x 4 -- 41 411
                                - ends
4 - 2 x 4 -- 41 511
                                - end braces
2 - 2 x 4 -- 6' 0"
                              - sides
4 - 2 x 4 -- 6' 3"
                                - side braces
4 - 4 x 4 -- 2' 0"
                                - corners
2 - 2 x 4 -- 41 1"
                                - inside braces
2 - 2 x 4 -- 1' 0"
                              - end stoppers
1 - 3/4" plywood 1'6" x 6'3"
                                - top
6 - 1 x 1 -- 18"
                                - top cleats
2 - 6' sections of rollers
48 - 6" bolts with nuts and washers (to bolt braces on)
4 - 4" bolts (to fasten stoppers on end)
8 - 4" lag bolts (to bolt inside braces on)
14 - 2" lag bolts (to bolt rollers on the stand)
16 - 1" lag bolts (to fasten casters on)
2 - swivel casters (for back legs)
2 - stationary casters (for front legs)
2 - 2" eye bolts
2 - small boomers
  - few small nails
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